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Updating Undergraduate Graphic Design Programs:

Recommendations for Including Communications and a History of Technology in Graphic Design
Education in Order to Better Prepare Graphic Design Students for Their Profession

by

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Final project submitted in partial fulfillment of the requirements for the degree of
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SKIDMORE COLLEGE

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Abstract

The knowledge required for today's graphic design students to become well-rounded communication professionals is changing due to new technologies and new communication media. Revising educational curricula to satisfy these new needs must be addressed in the undergraduate graphic design programs that are currently being offered by art schools, colleges, and universities.

A review of the literature, along with surveys of selected design firms in the Washington, DC area and professors at institutions offering undergraduate graphic design degrees, shows that communications studies and a background in the history of technology are two additional curriculum areas that would help to better prepare students for the professional tasks that await them upon graduation.

Introduction

Graphic design is a field and a discipline that is experiencing major upheavals and growing pains. It is a degree program that prepares students to become visual communicators of messages.

Designers always have—and still do—use a combination of visuals and text to communicate a message. However, the methods, tools, and contexts in which this communication occurs are changing, even if the actual nature of graphic design is not.

The changes that are arising are due, in part, to technology—specifically the computer—and to the corresponding issues and decisions that have been added to the message and information dissemination process. Therefore, it is the ways and methods with which these messages are communicated that have been changing and continues to change. It is because of this that the scope of knowledge that designers will need to know (and call upon to continue presenting clear and productive messages) also needs to change.

Design students must be better prepared for today's workplace, and this preparation must begin with what design students study during their undergraduate schooling. The components of an undergraduate graphic design education that adequately prepares young designers to comprehend and function in a workplace environment today is what needs to be addressed by the educational community.

The assorted curricula of graphic design programs must begin to offer and address additional areas of learning to assist this learning process. Philip Meggs, professor of communication arts and design at Virginia Commonwealth University,

stated during a lecture at the April 1997 School of Visual Arts (SVA) “How We Learn What We Learn” conference for graphic design educators that:

Graphic design and all of its expanding manifestations must face a challenge of reinventing itself, not merely to remain relevant, but to continue to serve the community by giving clarity to information, forms to ideas, and aesthetic expression of public communication.

With this statement that he made to his peers, he directly and concretely addressed the issue that both the skills and areas of knowledge that are taught to undergraduate graphic design students must be reconsidered and reformatted when necessary. He suggested that this be done in an effort to reflect the needs that society, the professional graphic design community, and clients have in terms of employee capabilities and their depths of understanding. The question has then become not whether to change undergraduate graphic design programs, but to what degree and in what fashion these changes should be made.

In light of how new technology and media is changing the field of graphic design, additional core knowledge areas and expanded communications skills will be a necessary part in the preparation of graduating designers. This paper suggests that additional curriculum areas coincide with the technical and training skills acquired through computer and studio courses. These additional content areas should offer a broader understanding of the history, methodology, and theories involved with communicating and communication.

The following review of the literature will help frame these questions and issues. A survey of school catalogues will shed further light on what is currently being offered in undergraduate graphic design programs. Specific research questionnaires asked of both business people and educators will ultimately provide the basis for this author's recommendations to adapt the content of graphic design curriculums.

This author's background and experience as a graduate of an undergraduate communications program, and as a co-owner of a graphic design firm for the past 14 years, has led to the topics presented in this paper. The recommendations, conclusions, and summaries of this paper will be used to initiate dialogues and critical discussions within the educational community as to the preparation of undergraduate graphic designers as future professionals who will be practicing in the field of graphic design.

Chapter One

Review of the Literature

Graphic design education and curriculum

A review of the literature addressing graphic design, graphic design education, and graphic design curriculum content shows that the areas that make up a graphic design education are much discussed but not definitively agreed upon by either educators or design professionals.

There are strong beliefs among those who write about graphic design education that critical components are not always included in the current curricula. These components are in areas of the education process that both train and educate graphic design students to survive and excel in today's vastly changing profession. Much of the literature discussing what graphic design students should be learning corroborates that things are indeed missing from graphic design curricula, and that a reassessment of design education should be in the forefront of design educator's agendas (Holland 226-231; Lewis 66-70; McCoy "Professional Design Education" 20-22; McCoy School of Visual Arts lecture).

This premise leads to the following questions: Why should undergraduate graphic design programs be changed or adapted? In what ways should undergraduate graphic design programs be changed or adapted? A review of the literature pertaining to what both educators and professionals are saying about the needs and possible shortcomings of these programs will help to shed light on this question of change.

Curriculum building and pedagogy have long histories with distinct methodologies and formats. The process by which educators determine curriculum content for any program of study is a fundamental consideration when looking at the questions surrounding curriculum change. As Willis et al. wrote in the book *The American Curriculum: A Documentary History*:

. . . thoughtful decisions about what educational path to take (the course of studies, or the “curriculum” in the most conventional meaning of that term) are never easy, for they are always decisions about which possibilities among many to follow and which way to turn from, and they are inevitably based on assumptions about value . . . (1).

Ultimately, curriculum choices are the results of numerous voices, decisions, and perspectives. The options, choices, and actions are never set in stone. What becomes apparent in reading about curriculum and curriculum building, is that educators must be held equally as responsible for ignoring the need for curriculum change as they would be for implementing changes (Walker 24).

In November/December 1995, *Print* magazine devoted a large section of the magazine to curriculum and education in the graphic design field. In this issue, *Print* explored the current state of graphic design education and provided results from a survey the magazine had created. The results came from responses from graphic design program directors at 97 institutions that offer graphic design degrees

(274 four-year degree granting institutions were mailed the survey). The survey focused on general school information, the students, the faculty, the curriculum, the facilities, and the philosophies of institutions offering graphic design programs.

Robyn Lewis, a graphic designer and educator, wrote the *Print* article that encapsulated the survey results. The article attempted to portray an overall picture about the current climate of graphic design education instead of making specific curriculum suggestions (Lewis 60-72). The overall climate portrayed is one of flux. This can perhaps best be demonstrated by the variety of discipline and department specialization labels listed in this survey article. Lewis included the following titles in her article:

[Design department titles] . . . Communication Design
and Illustration, Visual Communication Design,
Computer Art and Design, Electronic Imaging,
Advertising Design, Design Arts, Visual Information
Technology, Commercial Art, and Art in Business (61).

[Department specializations titles] . . . print communica-
tion; illustration; advertising; computer-aided design;
time-based mediums; fashion, interior, industrial, exhibi-
tion, and environmental graphics; interface design, and
photography . . . (61).

Conferences and educational lectures have also addressed the question and concerns surrounding what designers and design education programs are calling themselves. Two recent conferences that this author has attended within the last year in which this was a topic were the professionally-oriented “1997 How Design Conference” and the 1997 School of Visual Arts (SVA) “How We Learn What We Learn” conference for graphic design educators. (The complete program from the School of Visual Arts conference is Appendix A of this paper.)

This variety of specialization names clearly shows that graphic design is undergoing changes and identity clarification. Within the body of literature that addresses this issue, educators and professionals alike are seen pondering and reconsidering how the field of graphic design should be described. In an article that Ann Senechel wrote for *Adobe Magazine*, Senechel quoted Meridith Davis, head of the North Carolina State University graphic design program, as saying that, “Graphic design is a young profession that rose out of the trades of typesetting and printing. Now’s our chance to expand” (38). By saying this, Davis showed that graphic design has a historical background of change and adaptation. This variety of names also points out that education has room for a number of diverse graphic design department name headings under the larger umbrella of design. It is within this variety and diversity that graphic design programs can be seen as having the opportunities to adapt and add to their curricula.

Further review of the literature shows that there are many authors and educators who believe that there are areas within current graphic design programs that are open to adaptation or outright change. Some of the areas needing to be

changed or adapted in the education of graphic designers include the determination of mandatory liberal arts courses offered in conjunction with required core design courses, the amount of art and creative courses taken in relation to the amount of technical training courses, the integration of technical courses into design courses, and the inclusion of additional non-graphic design courses offered in the department in areas such as communications, technology, and business (Holland 226-231; Levy 42-52; Swanson 68-76).

One suggested response (although not perhaps the most expedient or simple because of various accreditation requirements such as those mandated by the National Association of Schools of Art and Design) to these multi-faceted options comes in the way of revamping curricula to include areas previously not taught through the graphic design department or program. Some graphic design educators have written that graphic design education requires a curriculum that is interdisciplinary in nature (Holland 228). It follows that if the end result is to graduate designers who are trained to function in a multitude of areas for a multitude of clients, then courses taught in an interdisciplinary or interdepartmental way could promote these results. The variety and breadth of curriculum options and category areas found within the articles written about this, suggests that because of the many discipline boundaries being crossed, it would be unrealistic to expect the discipline of graphic design studies to encompass all of this information within courses offered only through the graphic design departments. Graphic design education is not seen as existing in a world that is completely independent of other disciplines, and this educational process is preparation for what can be considered a multi-disciplinary

profession. It has also been described as an “integrative” field by people such as Gunner Swanson, a professional graphic designer and head of the graphic design program at the University of Minnesota in Duluth. Swanson added to his description by saying that “by lack of its specific subject matter, it [graphic design] has the potential to connect many disciplines” (69).

Another curriculum response connected to this multidisciplinary concept was explored by Gordon Salchow, a professor at the University of Cincinnati. In an article he wrote entitled “Two Myths About Design Education” he took issue with who teaches what in graphic design programs. Salchow suggested that educators consider looking at resources outside of their departments or even outside of their schools in an effort to include additional areas of learning for their students (221). Suggestions such as this offer a two-fold solution; an initial one that addresses segmented departmental ways of thinking, and a second one that allows input from appropriately trained non-education professionals. This consideration for including professionals in the education process is receiving much discussion in the literature since the scope of both technical and theoretical learning is continuing to increase.

Another possible area of curriculum change that is mentioned in the literature concerns the degree to which emphasis is placed on academic preparation and professional preparation. This emphasis varies with each educational institution and type of program (two-year, four-year, art school, etc.). Arguments that are currently being debated as to whether graphic design education should be more academic or more vocational are thriving in the graphic design education community (Holland 227). Katherine McCoy (former co-chair of the design department at the Cranbrook

Academy of Art and senior lecturer at Illinois Institute of Technology, Institute of Design) told the audience during her School of Visual Arts (SVA) lecture entitled “Evolution in Design Education” that the “graphic design educational community is totally out of control”. She expressed dissatisfaction with a lack of clarity about what the design profession is, and how educational institutions are preparing graphic design students to function as professionals upon graduation. McCoy has been involved with debating the state of graphic design education for at least the past 12 years and is surely among the top voices addressing these issues today (Holland 226).

McCoy concluded her SVA lecture by making some suggestions about the content of graphic design curriculums. In a curriculum for what she termed the “thoroughly educated student” she included liberal arts, sciences, art and design history, communication theories, research methods, and business and marketing skills. A review of the literature corroborates that this integration of studies, as well as a “broadening” of learning content, is what is leading the discussions and writings about the content of graphic design education and curriculum.

Graphic design education and the profession of graphic design

Part of the final goal of a graphic design student’s educational process is preparing the student to function as a professional in the workplace. A review of the literature pertaining to this preparation suggests that graduates are not always learning everything that the profession desires or even requires. Rather, this review found that some graphic design professionals believe that there is room for improvement on the part of educational institutions (Shapiro 102-106).

Ellen Shapiro, a professional graphic designer, wrote an article for the *Print* magazine survey issue in which she said that graduating graphic designers are not always considered employable even in entry-level positions. She came to this conclusion by interviewing people from numerous design firms across the country. Katherine McCoy has also discussed this lack of preparation, and she believes that it is the result of too many schools graduating too many designers. McCoy states that there are too many types of graphic design programs, and that “graphic design needs to establish baselines and minimum standards of professional practice and education” (McCoy lecture April 1997 School of Visual Arts (SVA) “How We Learn What We Learn” conference).

A question arises from the literature as to whether or not the function and mandate of an undergraduate graphic design education is to specifically prepare students for jobs. The literature addressing this point leads this author to conclude that educators are aware of and agree with the belief that graphic design education is, in part, supposed to provide qualified and capable visual communicators for the professional graphic design community (Holland 227). Gunnar Swanson writes that, “Though hardly homogenous, the vast majority of graphic design programs, . . . are, at least in concept, vocational training programs” (68). This declaration that undergraduate graphic design programs do exist partly to prepare students for professional careers in graphic design, and that at least a portion of an undergraduate’s schooling time is spent learning vocational skills, is corroborated by much of the other applicable literature.

The graphic design profession is not seen as a field that functions independently and within a self-enclosed universe. This belief is similar to some of the opinions expressed and noted with reference to inter-and multidisciplinary undergraduate graphic design education. The graphic design profession is about the visual communication of messages, and simply stated, the profession cannot exist without a client for whom to communicate. Graphic design is both an artistic endeavor and a business endeavor. John Beilenberg, a designer and teacher of graphic design at California's College of Art and Crafts, wrote that, "crafting the most appropriate and effective visual language" (184) is what a responsible designer does in an attempt to service the needs of a client. Beilenberg was addressing the dual needs of art and business, and it was his sense that this conflict is what continues to move the agenda of the graphic design field forward" (185).

Overall, a review of the literature finds that the profession of graphic design is reliant on the quality and competency of the graduates who are coming from graphic design programs, and that educators would be doing their students an injustice if the needs expressed by the profession were ignored.

Graphic design education and communications studies

The connection between graphic design and communications spans and includes areas such as communications theory and models, linguistics, and semiotics. A review of the literature shows that these connections are topics in the body of work written by both design educators and design professionals.

As previously noted, graphic design education includes areas from many disciplines in the arts, liberal arts, humanities, and social sciences. This author has selected two specific areas to review as possible additions to graphic design curriculums. The reasoning behind these selections is that they, as additions to the curriculum, will possibly help to fulfill the professional needs of today's graphic design industry. What follows is a review of the literature as it pertains to the relationship between both graphic design and communications, and graphic design and technology.

The literature shows that the consensus among educators and designers is that graphic design is a process of communication as well as an artistic creation. Gunner Swanson spoke to this issue of duality in his article "Graphic Design Education as a Liberal Art: Design and Knowledge in the University and the 'Real World'". In this article he wrote that graphic design is " . . . a field that is about expression *and* the mass dissemination of information" (73), and that teaching young designers to grasp this concept will enable them to make intelligent decisions about why a client's message is or is not communicated well.

It is generally agreed that graphic design is a process of communication that is used to communicate messages. These messages are often created by combining visual images with text. It follows then, that designers could benefit from being taught about communication theories as these theories apply to the profession of graphic design. This would provide design students with a theoretical basis in how and why an act of communication occurs.

Two areas found within the body of the graphic design literature that are relevant to this broad umbrella of communications theory are the study of basic process

communications theory models and the study of semiotics. The process school of communication theory—the fundamental concepts relating to sender/message/receiver—refers to the more technical aspects of communicating (Fiske 7). It is a theory that today is experiencing renewed interest since designers now work directly with computers and other information dissemination tools. Today's designers are creating messages with communications technology, and designers often are becoming the transmitters as well as the creators of messages for the new technology vehicles such as the internet and web pages. The result of this change is that designers are actually working with both process communications theory models and with semiotic communications models.

Katherine McCoy referred to both of these theories when she addressed the design educator audience at the School of Visual Arts. She attempted to put the use of these communications theories into a historical context for the audience by noting that the early emphasis of graphic design followed the advertising and process communications theory model, and that during the 1960's the emphasis was more about the message and thus fell into the realm of semiotics (McCoy lecture April 1997 School of Visual Arts (SVA) "How We Learn What We Learn" conference). This need to explore the connection between graphic design and communications is expressed in any number of additional articles on this subject.

The semiotics school of communication theory, which addresses the content and meaning of messages, is another area that is the subject of graphic design literature. It is an area with which designers are more perhaps more familiar (even if not always by name). A review of the literature includes the 1989 anthology *Design*

Discourse: History Theory Criticisms. The article “Drawing, Design and Semiotics” by Clive Ashwin provides further background on the existence of the relationship between communication theories and graphic design. In his article, Ashwin wrote about how semiotics and communications models could be used to cultivate theories about drawing and design (199-209). Ashwin, dean of faculty and professor at Middlesex Polytechnic in England, used basic communication theory concepts to further his arguments about signs and the modes of communication in which they are used.

Another slant on the connection between visuals and text and communications, as it appears in graphic design literature, comes from Rob Dewey, a design manager and writer whose work has appeared in *Eye*, the AIGA (American Institute of Graphic Arts) *Journal of Graphic Design*, and *Communication Arts* magazine. He wrote the following in his article “Facing Up to the Reality of Change”:

Perhaps the most thoroughly developed area of graphic design research is in the application of literary and language theories such as rhetoric, deconstruction, phenomenology, hermeneutics, structuralism, and reception theory to visual communications . . . these theories have much to offer graphic designers trying to address deep structures of meaning. In turn, designers who understand and use these tools have much to offer their clients (88).

As previously noted, graphic designers are sometimes more responsible today (than in previous times) for both the visual and the written in the depiction of overall messages, particularly in conjunction with using new media. The need to teach graphic design students to be aware of their field both in visual and textual terms is an integral part of the body of literature concerning the content of graphic design curricula. There are some in the graphic design field who are proponents of the teaching of semiotics and deconstruction as they apply to graphic design, saying that, "Design may be seen as the visual counterpoint to rhetoric" (Swanson 73-74). With further reference to this, Jessica Helfand, a graphic designer and contributing editor of *Print* and *I.D.* magazines wrote that, "Academic debate over the relationship between language and form has enjoyed renewed popularity in recent years, as designers borrowed from linguistic models in an attempt to codify and clarify their own typographic explorations" (50).

Ellen Lupton and J. Abbott Miller are perhaps the most well known writers on this subject. They began their 1996 book *Design Writing Research* with a section devoted to "Deconstruction and Graphic Design". The author's application of Derrida's deconstruction theories and Saussure's linguistic theories to graphic design (specifically with respect to texts) represents attempts by the graphic design community to address the connections between linguistics and visual communication. Lupton and Miller go on to say that typography, spacing, borders, and frames all come under the auspices of graphic design, and it is here where the formal structures of texts in terms of graphic design are to be explored (Lupton 14-15).

Lupton and Miller also explored oral and written language in a 1992 article about the history of typography entitled “A Natural History of Typography”. In this article, Lupton and Miller took the evolution of written language (written language coming after oral language, and the alphabet being created as a system of signs which when put together created representational concepts and communicated thoughts and ideas) one step further when they looked at how the history of typography and typeset letters differed from that of handwriting and calligraphy (Miller 19-25). Lupton and Miller also discussed this in terms of the changes that took place when manuscripts went from hand-written documents to typeset texts. Walter Ong (a well-known writer on orality and literacy) took this concept of connection between types of communication languages even further back in time to pre-writing cultures when he said that writing “reconstituted the originally oral, spoken word in visual space” (123). Information of this sort can find its place not only within a communication theory class, but also within a history of graphic design course since it puts the act of communicating into a broader historical context.

An overriding sentiment derived from the body of literature, as it refers to graphic designers needing to be taught about the broader topic of communications and graphic design, is expressed in an article written in 1992 by D.K. Holland, a graphic designer and editor for *Communication Arts* magazine and the *AlGA Journal of Graphic Design*. In this article Holland wrote that, “We [graphic designers] are communicators. . . . Design practitioners need to become a part of the communications solution” (231).

Graphic design education and a history of technology

This author's second specific area of review of the literature concerns graphic design curriculum and the inclusion of a history of technology. This subject is of great importance today since graphic designers now use even more technological tools, such as the internet and multimedia, than ever before. This explosion of technology use is directly related to the computer having become an integral part of the design process.

A review of the literature shows that it is agreed that the changes brought about by the integration of the computer into the design profession were enormous and far-reaching. As Roy R. Behrens, professor of art and teacher of graphic design and design history at the University of Northern Iowa, wrote in *Print* magazine, "By far the most momentous event in graphic design education took place in the mid-1980's. That pedagogical earthquake, of which substantial aftershocks continue . . . was mostly the consequence of the personal computer" (80). The impact of this new technology has seriously altered the sensibilities and knowledge that graphic designers need to bring to the design process.

The consideration of adding the history of technology to graphic design curricula is also part of the body of literature about graphic design. With reference to this, Phillip Meggs said in his SVA "The Lessons of History or the History of Lessons" lecture that many historians today believe that the driving force of history is technology. This statement, coming from the author of the book *A History of Graphic Design*, clearly gives credence to the suggestion that including a history of technology—as it directly relates to a student's field of learning—can only add to a broader base of understanding and knowledge of that field.

Another writer, Neil Postman, a renowned educator and writer on the topic of both education and technology, proposed that teaching the history of technology as a core subject in school programs is of enormous importance. In his book, *The End of Education*, Postman suggested that if students were asked to write about one pre-twentieth century technology as a final exam essay that they would then have a better, if not much more complete, knowledge about the impact that technology has on society (193).

Two other authors, who wrote from differing viewpoints on the broader subject of technology, also had something to add to this discussion concerning the need to include technology studies within the educational curriculum. Marshall McLuhan, writer and professor and J. David Bolter, writer, professor of classics at the University of North Carolina, and a visiting fellow in computer science at Yale University, both positioned their ideas about technology in larger pictures that included historical perspectives. McLuhan said, "Electric means of moving information are altering our typographic culture as sharply as print modified medieval manuscript and scholastic culture" (171). Bolter said, "The cultural meaning of the computer becomes clear only in comparison with the meaning of the clock for its age and the steam engine for its age" (16). Both of these educators/writers were expressing the serious need to study the impact that technology has on our culture regardless of whether their inclinations were pro or con technology.

Much of the graphic design literature that is concerned specifically with technology is about the growth of the computer and its direct impact on the field. Andrew Blauvelt, director of graduate studies in graphic design at North Carolina State University, and Meredith Davis, teacher of graphic design at North Carolina

State University, co-wrote an article for the *AIGA Journal of Graphic Design* in 1995 in which they discussed the need to understand this technological impact. In their article, Blauvelt and Davis said, “The concepts of ‘writing’ and ‘publishing’ take on new meaning as the relationships between source, message, and audience are redefined through electronic technology” (78). Essentially Blauvelt and Davis’ message—and the messages of others who have written on this subject—is that technology is now very much a part of the graphic design process, and that it is necessary to understand the positive and the negative impacts that technology and computers have had on the profession (Blauvelt and Davis 78). If nothing else, it has been suggested that it will benefit designers to have knowledge of a history of communications technology as it pertains to design, and that designers should become familiar with the impact that these technologies have when used to communicate and disseminate messages.

Summary of the literature review

Much is not agreed upon concerning the content of undergraduate graphic design curriculums. Graphic design spans two distinctly different worlds—the professional business world and the academic world, and both of these communities have much to say about the content of undergraduate graphic design curricula.

The literature shows that the intentions of the educational and professional worlds is to connect the needs of both of these worlds to one another, but that this connection, and therefore fulfillment of needs, is not always a reality. The professional world has its writers and reviewers of the field who speak from their perspectives,

and the academic world has its writers and reviewers who speak from theirs. Moreover, the academic world is divided once again within its own community depending on the type of institution and mission of the program. There are some educators who categorize graphic design as being more of an artistic endeavor, while others consider it to be a visual communication process that will be applied in the world of business. Some other educators see design as a field based in liberal arts, while still others see it as more of a vocational education that teaches applied skills and technical proficiency. Thus, a review of the literature shows that there is no one clear-cut path or definitive answer to the questions concerning curricula content.

This literature review also shows that graphic design is a field that has a history of being responsive to changes that are driven by both culture and technology. The dialogue concerning how to respond to the forces that are currently highlighting a need for educational content reassessment—technology and the computer—remains open and in the forefront of much of the literature. The educational community has been characterized as trying to maintain a balance between vocational and broad-based theory education, and the professional community portrayed as asking for workers who have more than only technical skills.

All of these diverse views and factors from both professionals and educators alike create a climate that includes a need for periodical educational reassessment of graphic design and communications programs in terms of area studies and content. Although there are numerous differences and opinions concerning the education of graphic design students, the significant overall message that comes from the

literature is that there is a desire on both the part of educators and professionals alike to have competent and knowledgeable students entering the workplace.

This review of the literature also shows that these two ends of the graphic design spectrum do not agree on the fulfillment of these needs, but that they are willing and eager to discuss how to educate future design professionals. Part of this on-going discussion includes the topics and curriculum areas of communications and technology. There have been many articles written that address these specific topics as they pertain to graphic design. Many of the articles referring to communications reflect the need to connect graphic design to communications to enhance the existing and accepted visual and text connection. The articles also show that communication theory is an area of study that has direct links to graphic design and the dissemination of information. This link, although not a prevalent consideration within the body of literature, is one that is receiving a fair amount of consideration particularly when it includes the topic of semiotics.

Many of the articles on technology are critiques about how technology has changed the field. Other articles accept the changes that the technological age has brought to bear on graphic design, and instead address the state of flux in which graphic design field has been left. The overriding sentiments have been that a redefinition of the field of design is in order both professionally and educationally.

The research that follows this review of the literature will help to clarify and identify the specific areas of communications and a history of technology that both educators and professionals see as possible inclusions in current undergraduate graphic design curriculum.

Chapter Two

Research

Methodologies

Purpose of the Research

The purpose of this research was to gather current topic-specific information about graphic design education. The purpose of reviewing current graphic design program school catalogues was to create a base of knowledge about current undergraduate graphic design programs. The purpose for the questionnaire research was to explore the opinions and perspectives of graphic design educators and graphic design professionals with reference to employee capabilities and the content of undergraduate graphic design programs. Both segments of the research were conducted to enlarge on the picture previously obtained from the review of the literature, and to add to a proposal to include communications studies and a study of the history of technology in undergraduate graphic design curriculums.

Design of the Research

The research for this paper was conducted by two different methods: a review of school catalogues and a questionnaire written for and administered to both educators and professionals in the field of graphic design. These two methods of the information collection were selected by this author to include two distinctly different information sources in this body of research.

The first part of the research process was the collection of current undergraduate graphic design programs catalogues from a sampling of art schools and

universities. The next step of this process was reviewing the school's graphic design programs and focusing on a series of questions that would provide an overview of both the missions and general content of these programs.

The second part of the research process consisted of writing two research questionnaires, pursuing questionnaire responses, and collating the received responses. Two versions of the questionnaires were used and tailored to each group of respondents. This permitted the focus of both of the questionnaires to remain the same. These separate questionnaires allowed this author to speak with and question both educators and professionals involved in the field of graphic design, and to obtain responses on related topics from the perspectives of both groups.

The first questionnaire was written for graphic design educators. The respondents were assistant professors, professors, or department heads in graphic design programs. The second questionnaire was written for graphic design professionals. The respondents were professionals affiliated with graphic design firms in the Washington, DC metropolitan area. The focus of all of the questions was an exploration concerning the need for including communications studies and history of technology studies in undergraduate graphic design programs. Appendices B, C, D, and E of this paper contain charts showing the findings from both the catalogue review and the questionnaires.

Data Collection and Presentation

The data for the catalogue review was collected by contacting schools and requesting the mailing of a general undergraduate catalogue, a graphic design

program catalogue, and a graphic design course description catalogue. The catalogues were then reviewed by this author, and information charts were created to summarize specific data on each of the educational institutions. Informational charts for the thirteen art schools and eleven universities are located in the Appendix section of this paper.

The data from the questionnaires was collected by this author through in-person or telephone interviews. Telephone respondents were given the option of answering the questions immediately or setting up a more convenient call-back time. Ten of the twenty-two people who were initially contacted and left brief messages did not return this author's telephone calls. However, no one refused to take part in the research process once the potential respondent actually spoke with this author and had the purpose of the questionnaire explained. All of the people who did take part in this research expressed a real interest in the subject matter and in the research process. All of the questions in the questionnaire were asked in as identical a manner as possible, and attempts were made to keep the majority of responses to yes or no for purposes of collation. In some instances, respondent answers included supplements to the yes or no responses. Some of these supplementary responses will be included within the research review text. The questionnaires were designed by this author to keep the interview time to between fifteen to twenty minutes per respondent. The responses of each of the persons interviewed is presented in charts that are located in the Appendix B and Appendix C of this paper.

Criteria for school and respondent selections

The following was this author's criteria for selecting the schools to be included in the school catalogue review. The selected schools should represent both art schools and universities that have undergraduate graphic design programs. All of the institutions selected should have undergraduate graphic design degree programs that are not less than four-year degree granting programs. In addition, it was preferable that the majority of the schools be accredited by the National Association of Schools of Art and Design (NASAD), and that the non-art school institutions have communications programs or communications schools within the institution. NASAD is the accrediting agency for schools with art and design programs. The agency was formed fifty-three years ago to maintain (among other things) high educational standards for graphic design education. The final selection criteria was that the schools be generally acknowledged—by those in the graphic design field—for the quality of their undergraduate graphic design programs.

The following was this author's criteria for selecting the questionnaire respondents. The selected graphic design educator respondents should be either assistant professors, professors, or department heads of graphic design programs within institutions that met the same institutional criteria as previously noted for the school catalogue review. The criteria for selecting the graphic design professional respondents was that these people should work in reputable firms located in the Washington, DC metropolitan area (an area which includes Washington, DC, Virginia, and Maryland). It was preferable that the respondents had been in the profession of graphic design for at least ten years and that they had been involved with both hiring staff and running the graphic design firm.

Research findings**School catalogue review**

The school catalogue review researched graphic design programs in selected educational institutions. The review was conducted to provide a base of information about the focus and mission of selected undergraduate graphic design programs in art schools and universities. See Appendices B and C of this paper for school catalogue review charts.

The review was formatted to focus on particular areas by asking questions such as: which degrees are conferred by the programs, which specialty tracks or majors are offered within the graphic design programs, and what the mission is of each of the graphic design programs as described by key words or statements. The reason for researching and reviewing the catalogue information in this way was to create a general overview describing the missions of a sampling of undergraduate graphic design programs in 1996/1997.

The school catalogue review sample consisted of thirteen art schools and eleven universities. All but five of the twenty-four institutions were accredited by the National Association of Schools of Art and Design (NASAD). As school catalogues are often one of the first presentation and marketing tools that an institution presents to both the prospective students and their parents, this author believed that reviewing these catalogues was an important way to determine what educators think is the vital, and perhaps even unique, information about their programs. This review was a source of information to be used in this paper in two ways: first the review could provide a general sense of how the field views itself in terms of educating its future

professionals, and second, the review could be used to make a list of the key descriptive phrases chosen by the educators to describe the learning components and areas that make up an undergraduate graphic design education today.

The following research findings come from this school catalogue review. It was found that the majority of degrees given by both the art schools and the universities were B.F.A. degrees. Only two of the twenty-four schools awarded a B.S. degree, and only one of the schools offered an A.A. (Associate of Arts) degree in addition to a B.F.A. degree.

It was also found that graphic design continues to be the most used name for the major program name and/or specialty track names within the major. The other names noted were: communication design or arts, digital design, digital media, computer arts or graphics, fine arts, visual communications, electronic media, and advertising. A small number of schools have added digital design specialty tracks to address the new needs and learning in the area of new media.

Many of the both the art schools and the universities stressed the area of professional preparation and communications as key elements of their graphic design programs. The fact that these two areas were consistently mentioned in all of the catalogues was indicative of the general level of importance that educators place on these two terms and concepts.

The school catalogues promoted the concept of professionalism by suggesting that a graphic design education will lead directly to a professional career after graduation. This addressed the notion that educators view the education of graphic designers as professional preparation for a trade or career that encompasses

particular learned skills—be they applied or theoretical skills. With reference to this concept of professionalism, the words career and clients were often included in the description of a school's design program or mission.

The artistic and aesthetic components of an undergraduate graphic design education often received less emphasis than did the promotion of this professional training. The exception to this came from some of the art schools where the artistic program components were more heavily stressed. This emphasis on professionalism can perhaps also be partially construed as pertaining to institutional marketing, and therefore may not be a true reflection or interpretation of the entire program contents or focus.

The term communications appeared in two separate areas of this catalogue review. The first time it appeared was in the tracks/majors segment of this research. The term communications was included in the names representing program tracks or majors in nine of the twenty-four institutions. Occasionally, communications was used in conjunction with the term graphic design, and sometimes it (not graphic design) was the name of the degree program itself. This is perhaps indicative of both how the field of graphic design views itself today, and of the changes that are occurring in the educational presentations and agendas of graphic design studies.

The second area in which the term communications was used was in the program descriptions section of this research. In this section, the term communications was used to describe the roles that graphic designers as communicators play in their day-to-day professional lives, as well as to describe the actual act of communicating. This act of communicating was described in the catalogues as both a solely visual act and as an act that combines written and visual communications.

Other words or phrases often mentioned in the catalogues program descriptions were: culture, role expansion, broad educational backgrounds, aesthetics, and a words-with-visuals combination. These phrases suggest that educators view the education of graphic designers as one that is broad-based in scope and inclusive of knowledge from many different fields and areas.

Questionnaire reviews

The questionnaires for this paper were designed to provide general information about graphic design and graphic designers, as well as to research particular areas of undergraduate graphic design education from the perspectives of both educators and graphic design professionals. The more specific emphasis of the research questions was concerned with the place that communications studies and studies in the history of technology may or may not have in a graphic design curriculum. In order to determine the needs for including these topics, it was this author's intent to compare individual questionnaire responses and then tabulate all of the responses.

A secondary purpose of the questionnaires was to investigate the similarities and discrepancies that possibly exist between what graphic design professionals believe is lacking in the educational background of their employees and what undergraduate graphic design educators believe should be included in their curriculums to address these unanswered professional needs. See Appendices D and E of this paper for questionnaire charts and results.

Graphic design educators

The first part of the questionnaire research was conducted with graphic design educators. The results included responses from seven educators who teach in undergraduate graphic design programs. The respondents were assured of anonymity prior to being asked the questions.

The research focused on three main areas: courses and curriculum, workplace preparation, and the changing roles of graphic designers. The charts consist of fifteen yes or no questions (some with subset questions), and the responses were tabulated to reflect the accumulated responses. The tabulated responses, as opposed to individual responses, are the critical components of this research.

The following are the research findings from the questionnaire responses. Professional training and communications were explored within the courses and curriculum section of the questionnaire. The results showed that educators are very aware of their roles as preparers of future graphic design professionals, and that their graphic design curriculums change to reflect what the profession requires. As an addendum to this, two of the educators who answered yes to this curriculum change question said that education—not the profession—should lead the way for educational changes. In addition, all of the educators said that one of the missions of their programs was to train an employable student. A majority also thought that another goal was to train knowledgeable and well-rounded students. All of the educators said that the field of graphic design is broad-based and should include teachings from a variety of other disciplines.

The majority of the remaining course and curriculum questions dealt specifically with the topics of communications and a history of technology. It was found that the majority of educators said that graphic design is a form of communication and that graphic design students should be taught to analyze communications problems. The educators also said that they believed it is necessary to teach students to define and disseminate messages. They said that it was advisable that graphic design students take communications, media, and business courses as electives or that students should be taught these subjects through design department courses and requirements.

The technology questions explored two areas: the computer and the cultural impact of technology. It was found that five of the seven educators believe that the computer was the last major cause for curriculum changes, and that other communications technologies (such as photography and phototypesetting) have had similar impacts on graphic design curriculums in the past. All but one of the educators felt that one of the missions of their programs was to teach students computer skills. Fewer said that they would advise their students to take electives in culture and a history of technology, but the majority of the educators were still in favor of their students doing this. With reference to all other electives, many of the educators noted that they had little leeway in the area of electives since much of their curriculum is determined by accreditation requirements, but that they do advise their students to take electives or minor in areas other than graphic design.

The response to workplace preparation concurred with the professional preparation goals noted in the previous courses and curriculum section. All of the

educators said that they believed that their students are prepared for the workplace after completing their graphic design educations.

The final questionnaire area was about the changing role of designers. The educators were split in their opinions about saying whether or not graphic design is an art-based discipline. The majority did say that graphic design is a communications-based discipline, and that their students should be taught both writing and visual communication skills. One of the educators added to this answer by saying that graphic design is at the intersection of art and language.

The following findings are about the future graphic designer. All but two of the educators saw the need for a hybrid type of graphic designer—a designer with a double major or a major-minor in communications and graphic design—and again, all but two said that new media and information architecture courses suggest the need for a designer trained in this fashion. However, less than half of the educators said that this need was currently being addressed by specialty tracks or new majors within their programs. As a point of interest concerning hybrid designer/communications students, over half of the educators said that communications students are taking some courses from the graphic design department, so it is possible that this double major or major-minor concept can be extended to communications programs as well.

Graphic design professionals

The second part of the questionnaire research was conducted with graphic design professionals. The results include responses from five professionals who are

working in the field of graphic design. The respondents were assured of anonymity prior to being asked the questions.

The research focused on three main areas: what professional graphic design firm owners see as lacking in the education of their graphic designer employees (with specific reference to communications and a history of technology), what the qualities are that these professionals look for in employees, and the changing roles of graphic designers. The tabulated responses, as opposed to individual responses, are the critical components of this research.

The first area of the questionnaire dealt with whether or not undergraduate graphic design programs need to change to continue preparing students for today's business environment. It was found that all of the professionals said that graphic design education needs to change in order to accomplish this. Four of the five professionals (one person could not answer the question with a definitive yes or no) said that graphic design schools are not providing them with the type of employee they need. Some of the things that the respondents felt were missing were writing and verbal skills, well-rounded thinking and problem-solving capabilities, research capabilities, an understanding of business, deadline skills, the ability to decipher real client problems, and general life experience. A subset of questions addressed why teaching these qualities was necessary as part of the educational process. All of the professionals said that changes were necessary because it would help their employees service clients better and provide clearer client messages. Changes were also considered necessary because it would make employees generally more well-rounded and knowledgeable. All but one of the respondents said that it would make their

employees more useful. Fewer of the professionals said that changes were necessary because a blurring of the roles of graphic designers is occurring. Instead, some of the respondents viewed this blurring as a redefinition or expansion of roles.

The next set of questions was concerned with providing courses and a background in communications and history of technology. The design professionals were asked if courses on both of these topics would help designers do their jobs better. It was found that the answer, with reference to communications, was an overwhelming yes from all five of the professionals. The reasons for the five yeses were that entry-level (graphic design school graduates) designers do not understand the broader picture of their jobs or how client messages are communicated. The design professionals said that designer's messages would be clearer if they had an educational background in communications studies, and that an understanding of message and information dissemination would clearly help designers to do their jobs better. Once again, the responses were mixed as far as saying there is a blurring of professional lines. Responses were also mixed as to whether or not clients expect designers to be able to both write and design. A number of the professionals said that this capability is not something their clients expect, but it is something that their clients would like.

The area of communication technology history was also of importance to these professionals, although slightly less important than the area of communications. It was found that more than half of the professionals said that courses on a history of technology and communication technology vehicles (internet, web, and multimedia) would make their employees more competent, and that this knowledge would help designers to choose appropriate vehicles for message dissemination.

All but one of the respondents said that this educational background would help designers to design projects with particular technology advantages and disadvantages in mind, and therefore, that designers would have a better understanding of new media technology after taking these courses.

A second area of the questionnaires was concerned with the specific qualities that professionals look for in design employees. It was found that all of the professionals responded with a yes on the importance of the following: schooling and design degrees were necessary; computer courses only were not enough; designers must be able to communicate messages, verbal skills were very important; general communication skills and an understanding of media background in technology were necessary; the ability to choose project formats was an important quality; and having a broad cultural awareness of graphic design as being more than art. All but one of the respondents also said that business and writing skills were important. The respondents said that they were less interested in the specific courses their employees took in school as long as the courses provided this type of knowledge.

A third research area focused on the changing roles of graphic designers. As a frame of reference, it was established that all five of the professionals are owners of graphic design firms currently working with new media (internet, web, and multimedia) projects, and that this was a growing portion of all five of the businesses. It was found that all but one respondent said they believed that a new type of designer needed to be trained in order to be a new media designer. Four of the five professionals said that in five years they might find that a young designer with a multidisciplinary degree in graphic design and communications would be more useful to them and to

their business than a designer with only a traditional graphic design degree. One respondent offered the following reason for saying this. That person said designers inherently are not good communicators other than through imagery, and that this multidisciplinary degree make designers more receptive to new ideas. Another respondent said that graphic designers would be more well-rounded whole communicators having knowledge of the new media.

The professionals were asked to complete their questionnaires with responses to four statements. All five of the respondents answered yes to all of the statements. They all said that graphic design is a form of communication, that graphic designers are communicators, that graphic design programs need to teach students how to communicate messages, and that graphic design programs should teach a cultural history of communications technology.

Summary of the research

The school catalogue research provided a base of information that addressed how selected educational institutions view and portray themselves to the world and to prospective students and their families. The catalogues were reviewed for broader mission concepts and basic degree program information with a particular interest in the program aspects that dealt with communications and the history of technology.

The catalogue review included twenty-four current school catalogues from schools that offer undergraduate four-year graphic design degree programs. Thirteen of the institutions were art schools and eleven were universities, and all but five of the institutions were accredited by the National Association of Schools of Art and

Design (NASAD). Two key areas were considered in this portion of the research. They were how the field views itself in terms of educating its students, and how graphic design programs describe the learning components and areas that make up an undergraduate graphic design program today.

When key descriptive phrases were analyzed in catalogue descriptions of the programs, the research showed that professionalism and communications were key words and concepts found in many of the catalogue program descriptions. The use of the words, professional, client, and career suggests that graphic design educators view the education of graphic designer students as one of professional career preparation. The use of the term, communications showed that educators see their students as communicators who work in a communications field.

The research showed the following about the key descriptive phrases that were used in the catalogues. Most of the program majors were described by the use of the words, graphic design in their program or major titles, but communication design, digital design, digital media, visual communications, and computer arts or graphics were also used to denote majors, program names, or specialty tracks within programs. It was therefore found that the word, communications played a large role in the catalogue program descriptions.

The role that technology plays in a graphic design program was also described in the catalogues. Some catalogues stressed computers as being integral parts of the general graphic design curriculum, and some portrayed digital media as being an entirely new track of learning for designers interested in pursuing the more technologically oriented aspects of graphic design. Overall, the catalogue research

provided a general background about what is being taught in the graphic design programs of today, and what graphic design educators think graphic design students want to learn about and need to know.

The questionnaire portion of the research explored the perspectives of two different groups of respondents. One questionnaire was written for graphic design educators and one for graphic design professionals. The research showed that graphic design educators believe that one of their missions is to prepare students for future professional careers. It also showed that educators believe that their students are well-prepared to function as professional designers upon graduation.

The educators also said that the discipline of graphic design is broad-based and should include teachings from a variety of disciplines. They viewed the field of graphic design as a communications field, and therefore said that communications studies should be included in graphic design curriculums. In addition, educators said that the computer was the most recent cause for curriculum changes, but that other technologies have had this impact in the past. The educators felt that their students could gain from studies in a history of communications technology, and they said that this should either be included in graphic design courses or that their students should take outside electives in this area. As far as the changing roles of designers is concerned, all but two of the educators said that they saw a need for a hybrid designer who is also trained in communications.

The research showed that graphic design professionals are clear about the qualities that they look for in employees. They said that they do not believe they are getting employees from design programs who are well prepared for the workplace

and trained in the ways they think are necessary. The professionals all saw the need for changes in educational curriculums to address this preparation.

In addition, the graphic design professionals said that they saw the need for their employees to have a background in both communications and a history of communications technology. They said this for a number of reasons, not the least of which was that they believed the following to be true: graphic design is a communications field, the field is changing to include new areas of work, and the more knowledge that their employees have about this the better they will be able to perform their jobs and service their clients.

There were a number of similarities and discrepancies that came to light when the questionnaire responses from the graphic design educators were compared with the responses from the graphic design professionals. The research showed that both groups shared the following similarities in their responses: graphic design students need to be trained as professionals; graphic design is a communications field and discipline; a graphic design degree is a necessity to become a professional graphic designer; a graphic design program should include communications studies in its curriculum; a history of technology should be included in either graphic design courses or as an elective because it would help designers to have a better understanding of the forms of media with which they work; a graphic design education should be broad-based and take from many disciplines; and there is a need for a hybrid designer with a design and communications degree and background.

The research showed the following discrepancies in the responses from the two groups: educators and professionals both think that they each leads the way for

determining which educational changes will address current professional needs; and specialty tracks for information architecture and new media designers (although a need acknowledged by both graphic design educators and professionals) is not something present in the majority of today's graphic design programs. One final, and perhaps most telling, discrepancy is that graphic design educators believe that their students are well prepared for the workplace, while graphic design professionals do not believe that their employees have been well prepared by their graphic design programs.

The chapter that follows consists of a summary and recommendations. The summary is based on information from the literature review and from the research. Recommendations for undergraduate graphic design programs are based on the information found in this summary.

Chapter Three

Summary and Recommendations

The review of the literature and the research findings for this paper brought to light a number of weaknesses in the preparation of undergraduate graphic design students with concentrations in graphic design majors. The literature and this author's research address the broader and more specific areas where possible curriculum changes could occur in undergraduate graphic design educations and programs. Recommendations, based on a summary of key points, suggest that curriculum changes—if implemented—could be part of a process enabling educators to provide the profession of graphic design with students who are taught skills that are relevant and crucial for today's changing business requirements.

Summary of the review of the literature and the research findings

The following are the principal issues found in this author's review of the literature and substantiated by this author's research. This information provided the basis for this author's recommendations for the curricular reform in undergraduate graphic design programs.

Point number one: Undergraduate graphic design programs exist, at least in part, to prepare students for professional careers as graphic designers. The literature review and this author's research both substantiate this statement.

Point number two: Graphic design is a form of communication, and graphic designers are communicators. This statement is also substantiated by both the literature review and this author's research.

Point number three: An undergraduate graphic design education encompasses learning from numerous areas and disciplines. Both educators and professionals alike believe that graphic designers are well served if taught in a broad-based and multidisciplinary manner.

Point number four: For a number of reasons (among them new technologies and new communications media) graphic design education and the profession of graphic design are in a state of flux. These states of flux have historically moved the agendas of education forward and have led the way for past curriculum adaptations and changes.

Point number five: Graphic design professionals do not believe that recent design graduates who apply for positions with their firms are fully prepared by the educations that they have received. Graphic design educators believe that their students are well prepared for the workplace by the educations that they have received. This discrepancy needs to be addressed by both professionals and educators.

Point number six: With respect to the two specific curriculum areas with which this paper is concerned—communications and a history of technology—both the review of the literature and this author's research indicate that these two areas are critical and should be included in graphic design programs for today's graphic design students. Curriculums in all disciplines have historically changed to include new areas of learning as the need arises.

Point number seven: There is no clear-cut and definitive curricular path for graphic design programs to follow. Aside from specific accreditation requirements, there is no existing undergraduate graphic design program whose focus is considered the standard for all undergraduate programs. There are numerous programs, specializations, and majors available to students concentrating in graphic design. Providing a variety of courses will make it possible for graphic design educators to change and update program contents and curriculums.

Point number eight: Many educators and professionals believe that there is a need for a new type of graphic designer— a hybrid designer. This hybrid graphic designer would be someone trained in both graphic design and communications, and this person would bring all of that training to bear on his or her professional endeavors by providing their places of employment and clients with new and necessary skills.

Recommendations

The following are this author's recommendations. These suggestions refer to things that graphic design educators should consider, and things that undergraduate graphic design programs should implement in an effort to address recent professional needs noted in the summary review.

The first recommendation is that educators and the professionals should maintain an open dialogue with one another. This dialogue could be used to address the questions that professionals have about graphic design undergraduates not being sufficiently prepared for the workplace. Whatever the areas of insufficient

preparation are, this open dialogue could be critical in sharing how and if an undergraduate education is doing its very best in teaching students what they need to know for today's changing business environment. This dialogue could occur face-to-face in the form of conferences or could be through a written dialogue with contributions from both professionals and educators. Regardless of whether educators or professionals believe that each one is leading the way for the other, the fact remains that a graphic design education is an education that is professionally oriented. Both educators and professionals must communicate about what is working and what is not working in the educational process. Addressing these needs and problems in a neutral environment could move this dialogue forward, and, in the end, provide a more complete education for undergraduate graphic design students.

The second recommendation is that graphic design programs review their current curriculums and open them up to cross-disciplinary teachings. This addresses the need expressed (by both professionals and educators in the literature and in this author's research) for broad undergraduate graphic design educations that include teachings from a number of disciplines.

As the knowledge necessary for training graphic designers has been shown to cross disciplinary boundaries, the suggestion that graphic design be taught in a multi-disciplinary fashion pre-supposes that creating a bridge between departments within educational institutions is both feasible and an option. If it is an option, this type of teaching could be accomplished through interdepartmental course sharing (where courses could be taught and made relevant to a design major by keeping the student's major in mind) or through inclusion in the graphic design department's

curriculum. For instance, the graphic design and communications departments of colleges and universities could consider methods of speaking to design students in ways that would benefit these students in the work that they are doing in their own resident departments. Art schools and smaller colleges face a different set of circumstances in that they may not have other departments with whom to do this. In that case, perhaps considering either an affiliation with other institutions or long-distance courses could accomplish this concept of interdepartmental sharing.

The third recommendation is that educators should teach graphic design students communications theories. Communications was considered to be a very important issue by both educators and professionals. Teaching communications theories would enable graphic design students to have a base of knowledge from which to draw when working on design projects. Thereafter, students would be able to incorporate these theories of process and message communications from their school projects and education into the array of professional skills that they bring to their client projects. This would ensure that students would be better prepared for the professional responsibilities they will be encountering after graduation. Students who attend institutions that provide this training would have much more to offer prospective employers than students who have none of this training.

The fourth recommendation is that educators should teach graphic design students a history of technology as this pertains to graphic design. This too was shown to be of importance particularly because of the enormous impact that the incorporation of the computer has had on both the design process and on graphic design educational programs. Within the literature, this incorporation of computers

into graphic design education was referred to as a “pedagogical earthquake”, and this author’s research showed that the professional community believed that the computer has led to new job skills, new knowledge needs, and new client project requirements. Technical training on computers in conjunction with broad theoretical backgrounds about why and how changes are occurring today would create a more solid foundation from which these students could continue to learn and grow. One way of beginning to move this agenda of including technology in graphic design curriculums forward is to promote an awareness of current day and historical technology impacts and create departmental responses to address these impacts.

With reference to both the third and fourth recommendations, people who are training to be professional communicators must be made aware of the history of communications and communication technologies, the impact that communications makes on everyday life, the responsibilities involved in the act of communicating, the methods with which to communicate clearly, and the ways in which miscommunications can occur. One way of teaching graphic design students about this is through a historical perspective and study of technological communications vehicles. This will ensure that students bring an understanding of both the potential pros and cons of technology and its uses to their design methods and decisions.

The fifth recommendation is to create new undergraduate program speciality tracks for graphic design students. If graphic design students are given the option to include new areas of focus in their learning tracks, it will lead to the creation of this new type of hybrid graphic designer—a graphic design/communications double major student. Two examples of reasons for needing these specialty tracks are the

areas of new media and information architecture. These two areas are relatively new to the field of graphic design, and both of these areas call for knowledge not previously required by graphic designers.

The sixth recommendation is that educators promote the consideration of graphic design as being a communication-based profession (as well as being an art/creative-based profession). This will advance the way that graphic design is viewed in business, add new components to the skills required of graphic designers, and more clearly define what the realities are that graphic design students will be facing in their professional careers.

The implications for the future of the graphic design field are exciting if professionals and educators work together. Now is the time for educational institutions to reconsider how they are educating their graphic design students and re-examine how they are preparing their graduates for future success in the field of graphic design. Western society is in an age of information flux, and design professionals are poised to continue growing as a necessary and thriving body of communications professionals in the world of business. It is this author's belief that an implementation of these recommendations will reform the educational content of undergraduate graphic design programs, prepare knowledgeable and well-rounded graduates to meet the current needs of the graphic design profession, and assist in moving the agenda of change forward in the most beneficial ways for all concerned.

ANNOUNCEMENT

The School of Visual Arts
and the Visual Arts Foundation
present

How We Learn What We Learn

A Three Day Exploration into
the Ways Our Design History
and Education Informs Today,
and Will Transform Graphic
Design Tomorrow

April 4,5,6, 1997

At the Diocese of the Armenian
Church in New York City
630 Second Avenue

Celebrating the 50th
Anniversary of the
School of Visual Arts

Steven Heller
Conference Director

Carolyn Hinkson Jenkins
and **Richard Wilde**
Coordinators

Louise Sandhaus
Co-Organizer/Bit By Bit

Arthur Danto
Keynote Speaker

April 4

9:00

Welcome

David Rhodes, *President* School of Visual Arts

Steven Heller

9:15-9:45

Keynote

Arthur Danto

10:00-10:30

Artists, Advertising, and the Borders of Art: Implications for Graphic Design

Michele H. Bogart

10:40-11:10

Public Relations and the Cult of the Image

Stuart Ewen

11:20-11:40 Break

11:50-12:20

Women, Modernism & Design:

Repackaging History

Penny Sparke

12:30-1:00

Pre-history for the Next Century

Richard Hollis

1:00-2:30 ✂

2:30-3:00

History as Commodity

Richard Prelinger

3:10-3:40

CONCURRENT SESSIONS

1. Interactive Type History

Edward McDonald and Eric Kindel K HALL

2. Myths of the Sixties

Samuel N. Antupel G HALL

3:50-4:20

CONCURRENT SESSIONS

1. Women in Design: Problems for History

Martha Scotford K HALL

2. Theoretical Models in Early

20th Century Advertising

Ellen Mazur Thomson G HALL

4:30-5:00

The Lessons of History, or

The History of Lessons

Philip B. Meggs

5:10-6:00

On Reading, Writing and Teaching History

Panel Discussion

Ellen Lupton (Moderator)

6:10

Wrap Up

6:15-6:45

Additional Session

Interactive Type History

Edward McDonald and Eric Kindel

April 5

9:00

Welcome

9:15-9:45

Talking Theory, Teaching Practice

Johanna Drucker

10:00-10:30

Evolution in Design Education

Katherine McCoy

10:40-11:00 Break

11:10-11:40

Does It Exist: Stylistic Durability in

Graphic Design? Yes—But!

Gert Dumbar

11:50-12:30

Learning in Unexpected Places

Milton Glaser

12:45-2:15 ✂

2:30-3:00

CONCURRENT SESSIONS

1. A Personal View

Ed Fella (I) K HALL

2. Designers Make A Difference:

Educational Initiatives at the NEA

Samina Quraeshi G HALL

3:10-3:40

CONCURRENT SESSIONS

1. **Visual Literature:**

The Intersection of Writing and Design

Warren Lehrer K HALL

2. **Style and Personality:**

Finding Your Own Voice

Michael Vanderbyl G HALL

3:50-4:20

CONCURRENT SESSIONS

1. **The Disciplined Imagination**

Stephen Doyle K HALL

2. **Is There A Doctor In The House?**

Victor Margolin G HALL

3. **A Personal View**

Ed Fella (II) Y HALL

4:30-5:00

CONCURRENT SESSIONS

1. **Type As Critique**

Robin Kinross K HALL

2. **Demystifying Creativity,**

Or The Art of What Not To Do

Richard Wilde G HALL

3. **A Personal View**

Ed Fella (III) Y HALL

5:10-5:30 Break

5:30-6:00

Design Authorship

Michael Rock

6:10-6:40

Just Show The Good Ones

Rick Poyner

7:00

Wrap Up

April 6

9:30

Welcome

Louise Sandhaus

Throughout the Day

Designer as Educator

An exhibition of digital student work X HALL

9:45-10:15

Being Analog

Janet Abrams

10:15-10:55

Viewing Visual Education in the Context of New Technologies

Kristina Hooper Woolsey

11:05-11:20 Break

11:30-12:10

Toward an Understanding of Interaction: The New Design Thinking

Jessica Helfand (Moderator)

12:20-1:30

1:30-2:00

CONCURRENT SESSIONS

1. **Preparing Designers for the Future**

S. Joy Mountford K HALL

2. **Digital Show and Tell:**

Redefining Interactivity

Post Tool G HALL

3. **The Practice of Pedagogy in the**

Digital Domain

Piotr Szyhalski Y HALL

2:10-2:40

CONCURRENT SESSIONS

1. **Words Don't Speak, Type Does**

Michael Worthington K HALL

2. **How Not To Let The Medium**

Control The Message

Peter Girardi G HALL

3. **Digital Show And Tell:**

When Type Meets Programming

Erik van Blokland and Just van Rossum Y HALL

2:40-3:10

CONCURRENT SESSIONS

1. **Funky Dirty Environments**

Vs. The White Pabulum of Cyberspace

Allee Willis & Prudence Fenton K HALL

3. **Designer as Programmer as Designer**

Bill Smith and Ché Tamahori Y HALL

3:20-3:50

The New Best of the Good Old Cutting Edge

Lorraine Wild

3:50-4:00

Bit By Bit Wrap Up

4:10-4:30

Conference Wrap Up

Addendum

April 6

2:10-2:40

CONCURRENT SESSIONS

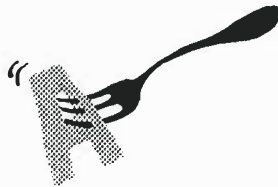
1. **Words Don't Speak, Type Does**
Michael Worthington K HALL
2. **Digital Show And Tell:**
When Type Meets Programming
Erik van Blokland and Just van Rossum Y HALL

2:40-3:10

CONCURRENT SESSIONS

1. **How Not To Let The Medium**
Control The Message
Peter Girardi K HALL
2. **Digital Show And Tell:**
Designer as Programmer as Designer
Bill Smith and Ché Tamahori Y HALL

**Remember: Due to Daylight Savings Time,
please set your clocks AHEAD 1 HOUR.**



APPENDIX B

School Catalogue Review: Art School Graphic Design Programs

SCHOOL	DEGREE	TRACKS/MAJORS	PROGRAM DESCRIPTION PHRASES *
Art Center College of Design Pasadena, CA	B.F.A.	Advertising, Digital Media, Graphic Design	"purpose is to discover, educate and then launch professionally the people who will be the leaders in the creation of visual and material culture"
California College of Arts & Crafts Oakland, CA	B.F.A.	Graphic Design	"shape culture through their work as designers", "intellectually rigorous humanities and science curriculum"
California Institute of the Arts Valencia, CA	B.F.A.	Graphic Design	"the role of designers is constantly expanding as communications become more important in our information-driven society", "program emphasizes the role of the designer as originator of ideas for projects"
The Cooper Union New York, NY	B.F.A.	Graphic Design	"combine imagination, theory and a command of visual language with an entrepreneurial attitude", "provide a general visual arts education and a specific professional preparation for future artists and designers"
Fashion Institute of Technology New York, NY	A.A. B.F.A.	Fine Arts: Graphic Design	"prepares men and women for careers", "career education with a broad cultural background"
Maine College of Art Portland, ME	B.F.A.	Graphic Design	"to provide for the highest quality, professionally oriented education in visual arts and related studies in art history and liberal arts", "incorporate words and images to communicate client ideas"
Massachusetts College of Art Boston, MA	B.F.A.	Communications Design	"quality professional visual arts education accompanied by a strong general education in the liberal arts", "text and image in the communication of ideas and messages for clients"
Moore College of Art Philadelphia, PA	B.F.A.	Communication Arts: Graphic Design	"development of a strong design aesthetic coupled with a thorough training in current technology", "emphasis on the teaching of thinking and the creative process"
Pratt Institute Brooklyn, NY	B.F.A.	Communications Design: Advertising, Graphic Design	"primary objective is to build the creative image-making and information design skills in students to excel in their careers"
Parsons School of Design New York, NY	B.F.A.	Communication Design, Digital Design, Visual Communications	"visual specialists who give form to information", "teamwork, ideas, information design, conceptual thinking", "a place for creative thinkers preparing for careers in the visual arts"
Rhode Island School of Design Providence, RI	B.F.A.	Graphic Design	"educates in the art and science of visual communication, stressing the professional practice of design", "combine the human factors and technology with aesthetics", "agents in the communication process"
Savannah College of Art & Design Savannah, GA	B.F.A.	Computer Arts, Graphic Design	"graphic designers convert ideas into symbols which convey specific messages", "visual communication which is technically and aesthetically strong, designers facilitate the goals of their clients"
School of Visual Arts New York, NY	B.F.A.	Advertising, Computer Art, Graphic Design	"by staffing the college with professionals, SVA is truer to life than more theoretical art schools"

* These descriptions are taken from the school catalogues.

APPENDIX C

School Catalogue Review: University Graphic Design Programs

SCHOOL	DEGREE	TRACKS/MAJORS	PROGRAM DESCRIPTION PHRASES *
Carnegie Mellon University Pittsburgh, PA	B.F.A.	Communication Design	"we define communication design as the art of conveying information", "communication design majors build on the rich history of print design, while actively exploring the potential of new media"
Kutztown University Kutztown, PA	B.F.A.	Communication Design: Advertising & Graphic Design	"students learn to develop innovative visual messages for specific audiences", "they carry these skills with them into the business world"
North Carolina State University Raleigh, NC	B.F.A.	Graphic Design	"process of bringing meaningful visual form to communication"
Pennsylvania State University University Park, PA	B.S.	Graphic Design	"problem solving to meet the communication needs of their clients", "you will confront both the artistic and technical side of your medium in a studio setting"
Rochester Institute of Technology New York, NY	B.F.A.	Fine Arts: Graphic Design	"process of visually communicating through the printed environmental and digital presentation of information and ideas", "students aesthetically order words, images and secondary elements"
Syracuse University Philadelphia, PA	B.F.A.	Advertising, Communication Design, Computer Graphics	"encourages students to reach their creative and intellectual potential and prepares them as professionals", "translate ideas and information through a variety of media", "explore communication theory"
Texas Tech University Lubbock, TX	B.F.A.	Design Communication	"art-based program with a focus on conceptual problem solving that results in strong visual-verbal communication preparing students to enter the field of design"
University of Cincinnati Cincinnati, OH	B.S.	Digital Design, Graphic Design	"graphic design deals with design for communication", "designers are able to analyze communication problems and needs, and to visualize messages, ideas, and feelings"
University of Minnesota Duluth, MN	B.F.A.	Graphic Design	"focuses on applied design and graphic communication", broad-based liberal arts training"
University of North Texas Denton, TX	B.F.A.	Communication Design	"emphasizes broad development of the student as an artist and problem solver", "program is highly professional; the curriculum is structured to prepare students for careers in the design field"
Virginia Commonwealth University Richmond, VA	B.F.A.	Design, Electronic Media, Advertising Art Direction	"emphasis is placed on the development of visual perception, aesthetic awareness, cognitive thinking, and conceptual problem solving", "integrating form and information"

* These descriptions are taken from the school catalogues.

Graphic Design Educators Questionnaire

Your position:

Size of school:

Size and location of department:

Undergraduate graphic design programs need to change to continue to make students designers for today's changing business environment.

COURSES/CURRICULUM

Briefly, what are the missions and goals of your program?

To train a knowledgeable and well-rounded student Yes () No ()

To train an employable student Yes () No ()

To teach students to think and analyze communications problems Yes () No ()

To teach them computer skills Yes () No ()

To teach students to define and disseminate messages Yes () No ()

To promote graphic design as a form of communication Yes () No ()

To frame graphic design and its tools in a cultural perspective Yes () No ()

Does your curriculum change to reflect what the profession requires? Yes () No ()

Was the computer the last cause for major curriculum changes? Yes () No ()

Have other communications technology changes had this impact in the past? Yes () No ()

Do you believe the field of graphic design is broad-based and should include teachings from other disciplines? Yes () No ()

Do you advise your students to take electives or minor in areas other than graphic design?

Education Yes () No ()

Communications Yes () No ()

Business Yes () No ()

Media Yes () No ()

Advertising Yes () No ()

Marketing Yes () No ()

Culture Yes () No ()

History of technology Yes () No ()

Psych Yes () No ()

WORKPLACE PREPARATION

Do you believe that your students are prepared for the workplace? Yes () No ()

CHANGING ROLES OF DESIGNERS

Graphic design is an art-based discipline Yes () No ()

Graphic design is a communication-based discipline Yes () No ()

Graphic designers are communicators and need to be trained and taught both visual and writing skills Yes () No ()

There need for a hybrid designer with a double-major or major-minor in communications and graphic design Yes () No ()

New media courses and information architect courses suggest needs for this type of designer?
Yes () No ()

Are you addressing this need through specialty tracks or majors? Yes () No ()

Students should take courses that provide them with backgrounds in both culture & message dissemination Yes () No ()

Are students from communications departments taking any of your design courses Yes () No ()

APPENDIX D (page 1)**Questionnaire Responses: Graphic Design Educators**

QUESTIONS	RESPONSES FROM THE SEVEN PROFESSORS														TOTALS	
	1		2		3		4		5		6		7		Yes	No
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
COURSES AND CURRICULUM																
1. What are the missions and goals of your program? Answer yes or no to the following:																
a. To train a knowledgeable and well-rounded student	x			x	x		x		x		x		x		6	1
b. To train an employable student	x		x		x		x		x		x		x		7	0
c. To teach students to think and analyze communications problems	x			x	x		x		x		x		x		6	1
d. To teach students computer skills	x			x	x		x		x		x		x		6	1
e. To teach students to define and disseminate messages	x			x	x		x		x		x		x		6	1
f. To promote graphic design as a form of communication	x		x		x		x			x	x		x		5	2
g. To frame graphic design and its tools in a cultural perspective	x			x			x			x	x		x		4	1
2. Does your curriculum change to reflect what the profession requires?																
	x		x		x		x		x			x	x		6	1
3. Was the computer the last cause for major curriculum changes?																
	x		x			x	x		x			x	x		5	2
4. Have other communications technology changes had this impact in the past?																
	x		x			x	x		x				x		5	1
5. Do you believe the field of graphic design is broad-based and should include teachings from other disciplines?																
	x		x		x		x		x		x		x		7	0
6. Do you advise your students to take electives or minor in areas other than graphic design?																
	x		x			x	x		x		x		x		6	1
Answer yes or no to the following:																
a. Education		x	x		x			x	x			x	x		4	3
b. Communications	x		x		x			x	x		x		x		6	1
c. Business	x		x		x			x	x		x		x		6	1
d. Media	x		x		x			x	x		x		x		6	1
e. Advertising		x	x					x	x			x	x		3	3
f. Marketing		x			x			x	x		x		x		4	2
g. Culture	x				x			x	x		x		x		5	1
h. History of technology		x			x			x	x		x		x		4	2
i. Psychology					x		x		x		x		x		5	0

Note: When there is no x in a column it indicates that the respondent was unable to answer the question with a yes or no.

APPENDIX D (page 2)**Questionnaire Responses: Graphic Design Educators**

QUESTIONS	RESPONSES FROM THE SEVEN PROFESSORS														TOTALS	
	1		2		3		4		5		6		7		Yes	No
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
WORKPLACE PREPARATION																
7. Do you believe that your students are prepared for the workplace?	x		x		x		x		x		x		x		7	0
CHANGING ROLES OF DESIGNERS																
8. Graphic design is an art-based discipline?	x		x			x	x			x		x			3	3
9. Graphic design is a communication-based discipline?	x			x	x		x		x		x				5	1
10. Graphic designers are communicators and need to be trained and taught both visual and writing skills?	x			x	x		x		x		x		x		6	1
11. There is a need for a hybrid designer with a double-major or major-minor in communications and graphic design?		x		x	x		x		x		x		x		5	2
12. New media courses and information architect courses suggest needs for this type of designer?	x			x	x		x		x		x				5	1
13. Are you addressing this need through specialty tracks or majors?		x		x		x	x		x			x	x		3	4
14. Students should take courses that provide them with backgrounds in both culture & message dissemination?	x			x	x		x		x		x				5	1
15. Are students from communications departments taking any of your design courses?	x		x		x			x	x					x	4	2

Note: When there is no x in a column it indicates that the respondent was unable to answer the question with a yes or no.

Graphic Design Professionals Questionnaire

Your position, how long in the field, and do you hire designers yourself?

Size of firm (employees):

How long has the firm been in business:

Type of work and services offered:

Client names (optional) or types of clients:

Undergraduate graphic design programs need to change to continue to make students designers for today's changing business environment.

Do you see a need for this? Yes () No () Why?

To service clients better Yes () No ()

To provide clearer messages Yes () No ()

To make your employees more useful Yes () No ()

To have more well-rounded and knowledgeable employees Yes () No ()

Because the role of designers is changing Yes () No ()

Because a blurring of the roles is occurring Yes () No ()

Because design firm projects are changing to include new areas Yes () No ()

If designers had a background in communications would this help them do their jobs better?

Yes () No () If yes, this is true because:

Clients expect designers to write and design (especially for new media) Yes () No ()

Entry-level designers don't understand the broader picture Yes () No ()

Messages would be clearer Yes () No ()

There is a blurring of professional lines Yes () No ()

To understand message and information dissemination Yes () No ()

Would courses on different communication technology vehicles and course on the history of technology provide you with a more competent design employee? Yes () No () Why?

Would be able to choose appropriate message vehicles Yes () No ()

Would be able to design with the vehicles advantages and limitations in mind Yes () No ()

Would be able to offer visuals and written message combinations Yes () No ()

They would have an understanding of new media choices and functions Yes () No ()

Do you work with new media (internet, web and multimedia) now Yes () No ()

If not, why and will you start?

Is it a growing portion of your business? Yes () No ()

Have you heard of the term information architect Yes () No ()

Do you think a new type of designer needs to be trained to be information architects and new media designers Yes () No ()

Do your designers write as well as design (particularly when working with new media)?
Yes () No ()

Is design school providing you with the type of employee you need?

If a young person came to you in five years with a multidisciplinary degree in graphic design and communications do you think you might find that person more useful to your firm than another person with a traditional graphic design degree? Yes () No ()

These are important qualities in a design employee:

- () Schooling and design degree
- () Types of courses taken
- () Computer courses only vs. design degree & courses
- () Verbal Skills
- () Writing Skills
- () Ability to communicate a message
- () Understanding of media
- () Business skills
- () Communication skills
- () Ability to help choose project format options
- () Technology background
- () Broad cultural awareness beyond design as an art

Graphic design is a form of communication Yes () No ()

Graphic designers are communicators Yes () No ()

Graphic design programs need to teach students how to communicate messages Yes () No ()

Graphic design programs need to teach a cultural history of communications technology Yes () No ()

APPENDIX E (page 1)

Questionnaire Responses: Graphic Design Professionals

QUESTIONS	RESPONSES FROM THE FIVE PROFESSIONALS										TOTALS	
	1		2		3		4		5		Yes	No
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
1. Undergraduate graphic design programs need to change to continue to make students designers for today's changing business environment. Do you see a need for this?	x		x		x		x		x		5	0
If yes, why?												
a. To service clients better	x		x		x		x		x		5	0
b. To provide clearer messages	x		x		x		x		x		5	0
c. To make your employees more useful	x			x	x		x		x		4	1
d. To have more well-rounded and knowledgeable employees	x		x		x		x		x		5	0
e. Because the role of designers is changing	x		x		x		x				4	0
f. Because a blurring of roles is occurring	x		x				x			x	3	1
g. Because design firm projects are changing to include new areas	x			x	x		x				3	1
2. If designers had a background in communications this would this help them do their jobs better? If yes, this is true because:	x		x		x		x		x		5	0
a. Clients expect designers to write and design (especially for new media)	x			x	x			x	x		3	2
b. Entry-level designers don't understand the broader picture	x		x		x		x		x		5	0
c. Messages would be clearer	x		x		x		x		x		5	0
d. There is a blurring of professional lines	x		x				x			x	3	1
e. To understand message and information dissemination	x		x		x		x		x		5	0
3. Would courses on different communication technology vehicles and courses on the history of technology provide you with a more competent design employee?	x			x		x	x		x		3	2
If they has these courses it would help them to:												
a. Would be able to chose appropriate message vehicles	x			x		x	x		x		3	2
c. Would be able to design with the vehicles advantages and limitations in mind	x			x	x		x		x		4	1
c. Would be able to offer visuals and written message combinations	x			x	x		x		x		4	1
d. They would have an understanding of new media choices and functions	x			x	x		x		x		4	1
4. Do you work with new media (internet, web, and multimedia) now?	x		x		x		x		x		5	0
5. Is it a growing portion of your business?	x		x		x		x		x		5	0
6. Have you heard of the term information architect?	x		x		x		x			x	4	1
7. Do you think a new type of designer needs to be trained to be information architects and new media designers?	x			x	x		x		x		4	1

Note: When there is no x in a column it indicates that the respondent was unable to answer the question with a yes or no.

APPENDIX E (page 2)**Questionnaire Responses: Graphic Design Professionals**

QUESTIONS	RESPONSES FROM THE FIVE PROFESSIONALS										TOTALS	
	1		2		3		4		5		Yes	No
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
8. Do your designers write as well as design (particularly when working with new media)?	x		x			x	x			x	3	2
9. Is design school providing you with the type of employee you need?		x				x		x		x	0	4
10. If a young person came to you in five years with a multidisciplinary degree in graphic design and communications do you think you might find that person more useful to your firm than another person with a traditional graphic design degree?	x		x		x		x			x	4	1
11. These are important qualities in a design employee:												
a. Schooling and design degree	x		x		x		x		x		5	0
b. Types of courses taken	x			x			x			x	2	2
c. Computer courses only vs. a design degree & courses		x		x		x		x		x	0	5
d. Verbal skills	x		x		x		x		x		5	0
e. Writing skills	x		x		x		x			x	4	1
f. Ability to communicate a message	x		x		x		x		x		5	0
g. Understanding of media	x		x		x		x		x		5	0
h. Business skills	x		x		x		x			x	4	1
i. Communication skills	x		x		x		x		x		5	0
j. Ability to help choose project format options	x		x		x		x		x		5	0
k. Technology background	x		x		x		x		x		5	0
l. Broad cultural awareness beyond design as an art	x		x		x		x		x		5	0
12. Graphic design is a form of communication	x		x		x		x		x		5	0
13. Graphic designers are communicators	x		x		x		x		x		5	0
14. Graphic design programs needs to teach students how to communicate messages	x		x		x		x		x		5	0
15. Graphic design programs need to teach a cultural history of communications technology	x		x		x		x		x		5	0

Note: When there is no x in a column it indicates that the respondent was unable to answer the question with a yes or no.

Works Cited

- Ashwin, Clive. Drawing, Design and Semiotics. *Design Discourse: History Theory Criticism*. Ed. Margolin, Victor. Chicago: University of Chicago Press, 1989. 199-209.
- Behrens, Roy R. "On Graduate Education and Graphic Design." *Print Magazine*. Nov./Dec. 1995: 74-82.
- Bielenberg, John. "Thinking About Communication." *Looking Closer 2: Critical Writings on Graphic Design*. Eds. Beirut, Michael, William Drenttel, Steven Heller, and D.K. Holland. New York: Allworth Press, 1997. 183-185. (Originally published in *Communication Arts*, Mar./Apr. 1995.)
- Blauvelt, Andrew and Meredith Davis. "Building Bridges: A Research Agenda for Education and Practice." *Looking Closer 2: Critical Writings on Graphic Design*. Eds. Beirut, Michael, William Drenttel, Steven Heller, and D.K. Holland. New York: Allworth Press, 1997. 183-185. (Originally published in the *AIGA Journal of Graphic Design*, Vol. 13, No. 1, 1995.)
- Bolter, J. David. *Turing's Man*. Chapel Hill: The University of North Carolina Press, 1984.
- Dewey, Rob. "Facing Up to the Reality of Change." *Looking Closer 2: Critical Writings on Graphic Design*. Eds. Beirut, Michael, William Drenttel, Steven Heller, and D.K. Holland. New York: Allworth Press, 1997. 87-89. (Originally published in *Eye*, Nov. 14, 1994.)
- Fiske, John. *Introduction to Communication Studies*. 2nd ed. London: Routledge, 1990.
- Helfand, Jessica. "Electronic Typography: The New Visual Language." *Looking Closer 2: Critical Writings on Graphic Design*. Eds. Beirut, Michael, William Drenttel, Steven Heller, and D.K. Holland. New York: Allworth Press, 1997. 87-89. (Originally published in *Print Magazine*, May/June 1994.)
- Holland, D.K. "Graphic Design Education: Struggling Through Those Awkward Teenage Years." *Looking Closer: Critical Writings on Graphic Design*. Eds. Beirut, Michael, William Drenttel, Steven Heller, and D.K. Holland. New York: Allworth Press, 1994. 226-231. (Originally published in *Communication Arts Magazine* Sept./Oct. 1992.)
- Levy, Ron. "Design Education: Time to Reflect." *Design Issues*. Vol. 7, No. 1, Fall 1990: 20-22.
- Lewis, Robyn. "In the Academy: *PRINT'S* Survey of Design Schools." *Print Magazine*. Nov./Dec. 1995: 60-72.

Lupton, Ellen and J. Abbott Miller. *Design Writing Research: Writing on Graphic Design*. New York: Princeton Architectural Press, 1996.

McCoy, Katherine. "Evolution in Design Education or What's Wrong with Graphic Design Education." The School of Visual Arts *How We Learn What We Learn* conference. New York City, 5 April 1997. (Taken from a copy of the lecture that the author supplied by mail.)

McCoy, Katherine. "Professional Design Education: An Opinion and a Proposal." *Design Issues*. Vol. 7, No. 1, Fall 1990: 42-52.

McLuhan, Marshall. *Understanding Media. The Extensions of Man*. Massachusetts: MIT Press, 1994.

Meggs, Phillip. "The Lessons of History, or The History of Lessons." The School of Visual Arts. *How We Learn What We Learn* conference. New York City, 4 April 1997 (Taken from a tape-recording of his lecture.)

Miller, J. Abbott and Ellen Lupton. "A Natural History of Typography." *Looking Closer: Critical Writings on Graphic Design*. Eds. Beirut, Michael, William Drenttel, Steven Heller, and D.K. Holland. New York: Allworth Press, 1994. 19-25.

National Association of Schools of Art & Design (NASAD). *Directory*. Reston, Virginia: 1996.

Ong, Walter J. *Orality and Literacy: The Technologizing of the Word*. London: Routledge, 1982.

Postman, Neil. *The End of Education*. New York: Alfred A. Knopf, 1995.

Salchow, Gordon. "Two Myths About Design Education." *Looking Closer: Critical Writings on Graphic Design*. Eds. Beirut, Michael, William Drenttel, Steven Heller, and D.K. Holland. New York: Allworth Press, 1994. 220-223. (Originally published in *Print Magazine* Nov./Dec., 1981.)

Senechel, Ann. "It's All in the Process". *Adobe Magazine North American Edition*. Spring 1997: 34-40.

Shapiro, Ellen. "Reality Check: The Market for Design School Graduates". *Print Magazine*. Nov./Dec. 1995: 102-106.

Swanson, Gunnar. "Graphic Design Education as a Liberal Art: Design and Knowledge in the University and the "Real World." *Looking Closer 2: Critical Writings on Graphic Design*. Eds. Beirut, Michael, William Drenttel, Steven Heller, and D.K. Holland. New York: Allworth Press, 1997. 68-76. (Originally published in *Design Issues*, Spring 1994.)

Walker, Decker F. and Jonas F. Soltis. *Curriculum and Aims*. 2nd ed. New York: Teachers College Press, 1992.

Willis, George and William H. Schubert, Robert V. Bullough, Jr., Craig Kridel and John T. Holton eds. *The American Curriculum: A Documentary History*. Westport, Connecticut: Preager Publishers, 1994.

Worthington, Michael. "Computers Don't Speak, Type Does." The School of Visual Arts *How We Learn What We Learn* conference. New York City, 6 April 1997. (Taken from a copy of his speech on the web at www.alpertawards.com/typewriter)

Wurman, Richard Saul. *Information Architects*. New York: Graphis Press Corp, 1996.